

I CLAIM:

1. A method of making an expanded polystyrene core sports board comprising:

laminating a first blended sheet of expanded polystyrene and polyethylene to a bottom

5 surface of an expanded polystyrene sports board core;

laminating a slick skin to the first blended sheet of expanded polystyrene and
polyethylene on the bottom of the expanded polystyrene sports board core;

laminating a surface sheet to a foam backer sheet to form a foam-backed sheet;

laminating the foam backer side of the foam-backed sheet to a second blended sheet

10 of expanded polystyrene and polyethylene to form a composite top skin;

laminating the composite top skin to the top surface of the expanded polystyrene
sports board core; and

laminating a set of rail skins having the same composite structure as the top skin to
the rails of the expanded polystyrene sports board core.

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2. The method of claim 1, wherein laminating a first blended sheet of expanded
polystyrene and polyethylene to a bottom surface of an expanded polystyrene sports board
core includes laminating with a heat bonding lamination process.

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3. The method of claim 2, wherein the heat bonding lamination process is
selected from the group consisting of hot air lamination, inferred heat lamination, and radiant
head lamination.

4. The method of claim 1, wherein laminating a surface sheet to a foam backer sheet to form a foam-backed sheet includes laminating with a heat bonding lamination process.

5 5. The method of claim 4, wherein the heat bonding lamination process is selected from the group consisting of hot air lamination, inferred heat lamination, and radiant head lamination.

6. The method of claim 1, wherein laminating the foam backer side of the foam-
10 backed sheet to a second blended sheet of expanded polystyrene and polyethylene to form a composite top skin includes laminating with a heat bonding lamination process.

7. The method of claim 6, wherein the heat bonding lamination process is selected from the group consisting of hot air lamination, inferred heat lamination, and radiant
15 head lamination.

8. The method of claim 1, wherein laminating the composite top skin to the top surface of the expanded polystyrene sports board core includes laminating with a heat bonding lamination process.

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9. The method of claim 8, wherein the heat bonding lamination process is selected from the group consisting of hot air lamination, inferred heat lamination, and radiant head lamination.

10. The method of claim 1, wherein laminating a surface sheet to a foam backer sheet includes using heat bonding lamination process to bond the surface sheet to the foam backer sheet.

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11. The method of claim 10, wherein the heat bonding lamination process is selected from the group consisting of hot air lamination, inferred heat lamination, and radiant head lamination.

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12. The method of claim 1, wherein laminating a set of rail skins having the same composite structure as the top skin to the rails of the expanded polystyrene sports board core includes laminating a blended expanded polystyrene and polyethylene sheet to the rails of the expanded polystyrene sports board core prior to laminating a foam backer sheet and a surface sheet.

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13. A sports board comprising:

an expanded polystyrene sports board core;

a composite top skin heat bonded to the top surface of the expanded polystyrene sports board core;

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composite side rail skins heat bonded to side rails of the expanded polystyrene sports board core; and

a composite slick bottom skin heat bonded to a bottom surface of the expanded polystyrene sports board core.

14. The sports board of claim 13, wherein the composite top skin includes:

a solid top sheet of a polyolefin material;

a polyethylene foam backer sheet heat bonded to the solid top sheet; and

5 a blended sheet of expanded polystyrene and polyethylene heat bonded to the foam backer sheet.

15. The sports board of claims 14, wherein the composite side rail skins include:

a solid top sheet of a polyolefin material;

10 a polyethylene foam backer sheet heat bonded to the solid top sheet; and

a blended sheet of expanded polystyrene and polyethylene heat bonded to the foam backer sheet.

16. The sports board of claims 15, wherein the composite slick bottom skin

15 includes a solid surface layer heat bonded to a blended sheet of expanded polystyrene and polyethylene.

17. The sports board of claim 16, wherein the solid surface layer includes a solid low friction polyolefin material.

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